

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

Source:

Date Processed by STIC:

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
 U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street,
 Alexandria, VA 22314

Revised 01/10/06



Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 10/573/150
ATTN: NEW RULES CASES:	PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE
1Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
3Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220><223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220><223> section to the subsequent amino acid sequence. This applies to the mandatory <220><223> sections for Artificial or Unknown sequences.
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <10> sequence id number <400> sequence id number 000
9Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
10Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
11Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
Patoniin 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid
	AMC - Biotechnology Systems Branch - 09/09/2003





IFWP

RAW SEQUENCE LISTING DATE: 04/04/2006
PATENT APPLICATION: US/10/573,130 TIME: 10:13:06

Input Set : A:\Final Sequence list-13111-00035-US.txt

Output Set: N:\CRF4\04042006\J573130.raw

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3 <110> APPLICANT: Sturmer, Rainer
             Kesseler, Maria
             Hauer, Bernhard
             Friedrich, Thomas
             Breuer, Michael
     9 <120> TITLE OF INVENTION: Methods for the production of
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             3-methylamino-1-(thiene-2-yl)-propane-1-ol
    12 <130> FILE REFERENCE: 13111-00035-US
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/573,130
C--> 14 <141: CURPENT FILING DATE: 2005-03-23
    14 <150> PRIOR APPLICATION NUMBER: PCT/BP2004/010939
                                                             Darn Ket Gommy
    15 <151> PRIOR FILING DATE: 2004-09-30
                                                             Corracted Distalle Needer
    17 <150> PRIOR APPLICATION NUMBER: DE 103 45 772.0
    18 <151> PRIOR FILING DATE: 2003-10-01
    20 <160> NUMBER OF SEQ ID NOS: 44
    22 <170> SOFTWARE: PatentIn version 3.3
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/573,130

DATE: 04/04/2006 TIME: 10:13:06

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91	1				5					10					15			
93	ttg	ggt	atc	ggt	tta	gct	atc	gcc	acg.	aag	ttc	gtt	gaa	gaa	999	gct	96	
94	Leu	Gly	Ile	Gly	Leu	Ala	Ile	Ala	Thr	Lys	Phe	Val	Glu	Glu	Gly	Ala		
95				20					25					30				
97	aag	gtc	atg	att	acc	ggc	cgg	cac	agc	gat	gtt	ggt	gaa	aaa	gca	gct	144	
98	Lys	Val	Met	Ile	Thr	Gly	Arg	His	Ser	Asp	Val	Gly	Glu	Lys	Ala	Ala		
99			35					40				_	45	_				
101	aag	agt	gto	ggo	act	cct	gat	cag	att	caa	ttt	: ttc	caa	cat	gat	tct	192	
102	Lys	Ser	Va]	Gly	/ Thr	Pro	Asp	Gln	Ile	Gln	Phe	Phe	Gln	His	Asp	Ser		
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105	tcc	gat	gaa	a gad	ggc	: tgg	acg	aaa	tta	ttc	gat	: gca	acg	gaa	aaa	gcc	240	
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107	65					70					75					80		
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111					85					90		_			95		•	
113	aag	, agt	gtr	. gaa	a gaa	acc	acg	A	. act	gaa	tgg	i 'cgt	222	cta	tta	gcc	336	
114	Lys	Ser	: Val	Glu	ı Glu	Thr	Thr	The	Ala	. ราน	Th	Arc	Lys	Leu	Let	Ala		5.0
115	;			100)				105		_		_	110)			Sie and
117	gto	aac	ctt	gat	ggt	gto	tto	tto	ggt	acc	cga	tta	ggg	att	: caa	cgg	384	
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122	Met	Lys	Ası	Lys	Gly	. Leu	Gly	Ala	Ser	Ile	Ile	Asr	Met	Ser	Ser	Ile		
123		130)	-	_		135	,				140)					
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129	999	gco	gta	cgg	att	atg	tco	aag	tca	gct	gco	: tta	gat	: tgt	gco	cta	528	
130	Gly	Ala	Va]	Arc	Ile	Met	Ser	Lys	Ser	Ala	Ala	Lev	Asp	CyE	. Āla	Leu		
131				_	165			_		170			-	•	175			
133	aag	gac	tac	gat	gtt	cgg	gta	aac	act	gtt	cac	cct	ggc	: tac	ato	aag	576	
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135			_	180		_			185				-	190		_		
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139)		195	;	_	-		200					205	i				
141	cgg	acc	aag	acc	cca	atg	ggd	cat	atc	ggt	gaa	cct	aac	gat	att	gcc	672	
											-			_		Ala		
143	_	210					215			. •		220		•				
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149	tct	gaa	ttt	gta	gtt	gac	ggt	ggc	tac	act	gct	: caa	ì				756	
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RAW SEQUENCE LISTING DATE: 04/04/2006
PATENT APPLICATION: US/10/573,130 TIME: 10:13:06

Input Set : A:\Final Sequence list-13111-00035-US.txt

Output Set: N:\CRF4\04042006\J573130.raw

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RAW SEQUENCE LISTING DATE: 04/04/2006 PATENT APPLICATION: US/10/573,130 TIME: 10:13:06

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	Gly		Val	His	His	Val		Gln	Leu	Asp	Leu	Ser	Asp	Val	qaA	Ala	
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278	Ile	Ala	Leu-	Ala	Gln	Thr	Phe	Ala	Lys	Ala	Ile	Gly	Asp	Lys	Pro	Arg	
279			1.15			٠, ٠.						_	125	_			
281	aac	aca	ರಲ್ಲ	gee	cac	att	ÿtg	ttt	yte	teg	teg	ááC	gte	teg	ttg	cga	432
												Asn					
283		130					135					140					
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290 292 294 296 300 302 303 306 307 310 311 314 315 322 323 326 327 330 331	<210 <211 <212 <400 Asn 1 Ile Leu Gly Ala 65 Leu Ala Ile	l> Li 2> T: 3> OB 0> SI Ala Lys Lys Gln 50 Ala Val Lys	ENGTH (PE: (GAN) EQUEN Leu Gln 35 Val Ala Ser Gln Leu Leu	PRT ISM: ISM: ISM: Val Ala 20 Leu His Phe Asn Asp 100 Ala	Cand 6 Thr 5 Glu Glu His Lys Ala 85 Trp	dida Gly Glu Ala Val Gly 70 Gly Ser	Gly Val Trp 55 Ser Val Gln Phe	Ser Tyr Lys 40 Gln Pro Ala Met Ala 120	Arg Ser 25 Ala Leu Leu Gln Leu 105 Lys	10 Val Lys Asp Pro Phe 90 Ala	Ile Thr Leu Leu Ala 75 Ser Ile	Ile Pro Ser 60 Ser Pro Asn Gly	Ala Ile 45 Asp Arg Phe Leu Asp 125	Ser 30 Val Val Tyr Ile Ala 110 Lys	15 Arg Lys Asp Asp Glu 95 Ala	Gly Gln Ala Val 80 His Pro	
290 292 294 296 300 302 303 306 307 310 311 314 315 322 323 326 327 330 331	<210 <211 <212 <400 Asn 1 Ile Leu Gly Ala 65 Leu Ala Ile	l> Li 2> T: 3> OB 0> SI Ala Lys Lys Gln 50 Ala Val Lys	ENGTH (PE: (GAN) EQUEN Leu Gln 35 Val Ala Ser Gln Leu Leu	PRT ISM: ISM: ISM: Val Ala 20 Leu His Phe Asn Asp 100 Ala	Cand 6 Thr 5 Glu Glu His Lys Ala 85 Trp	dida Gly Glu Ala Val Gly 70 Gly Ser	Gly Val Trp 55 Ser Val Gln Phe	Ser Tyr Lys 40 Gln Pro Ala Met Ala 120	Arg Ser 25 Ala Leu Leu Gln Leu 105 Lys	10 Val Lys Asp Pro Phe 90 Ala	Ile Thr Leu Leu Ala 75 Ser Ile	Ile Pro Ser 60 Ser Pro Asn	Ala Ile 45 Asp Arg Phe Leu Asp 125	Ser 30 Val Val Tyr Ile Ala 110 Lys	15 Arg Lys Asp Asp Glu 95 Ala	Gly Gln Ala Val 80 His Pro	
290 292 294 296 300 302 303 306 307 310 311 314 315 323 326 327 330 331 334 335	<210 <211 <212 <400 Asn 1 Ile Leu Gly Ala 65 Leu Ala Ile Asn	l> Li 2> T: 3> OI 0> SI Ala Lys Lys Gln 50 Ala Val Lys Ala Thr	ENGTH (PE: (GAN) EQUEN Leu Gln 35 Val Ala Ser Gln Leu 115 Pro	PRT ISM: ISM: ISM: Val Ala 20 Leu His Phe Asn Asp 100 Ala Ala	Cand 6 Thr 5 Glu Glu His Lys Ala 85 Trp Gln His	dida Gly Glu Ala Val Gly 70 Gly Ser Thr	Gly Gly Val Trp 55 Ser Val Gln Phe Val 135	Ser Tyr Lys 40 Gln Pro Ala Met Ala 120 Phe	Arg Ser 25 Ala Leu Leu Gln Leu 105 Lys	10 Val Lys Asp Pro Phe 90 Ala Ala Ser	Ile Thr Leu Leu Ala 75 Ser Ile Ile Ser	Ile Pro Ser 60 Ser Pro Asn Gly Asn	Ala Ile 45 Asp Arg Phe Leu Asp 125 Val	Ser 30 Val Val Tyr Ile Ala 110 Lys	15 Arg Lys Asp Asp Glu 95 Ala	Gly Gln Ala Val 80 His Pro	

RAW SEQUENCE LISTING DATE: 04/04/2006
PATENT APPLICATION: US/10/573,130 TIME: 10:13:06

Input Set : A:\Final Sequence list-13111-00035-US.txt

Output Set: N:\CRF4\04042006\J573130.raw

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                                               155
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  358 <213> ORGANISM: Artificial sequence
  360 <220> FEATURE:
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J. 358 <211> LENGTH: 28
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  382 <213> ORGANISM: Artificial sequence
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  410 <221> NAME/KEY: MISC_FEATURE
  411 <222> LOCATION: (1)..(10)
  412 <223> OTHER INFORMATION: Fragment: C terminus
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10/5 15/150

Page 6

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<211> 60
<212> PRT
<213> Lactobacillus brevis
<220>
<221>
       VARIANT
<222>
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<223> Amino acid is Ala or Lys
<220>
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<222>
       (48) . . (48)
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       (53) . . (53)
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       (59) . . (59)
       Amino acid is Phe, Val, Gly, or Asn
<223>
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       misc feature
<222>
        (60)...(60)
<223>
      (Xaa is unreadable
<400>
Ser Asn Arg Leu Asp Gly Lys Val Ala Ile Val Thr Gly Gly Thr Leu
                 5
Gly Ile Gly Leu Ala Ile Ala Thr Lys Phe Val Glu Glu Gly Ala Lys
            20
                                                        30
Val Met Ile Thr Gly Arg His Ser Asp Val Gly Glu Lys Ala Ala Lys
        35
                                                              explain "Xaa
Ser Val Gly Thr Fro Asp Gln Ile Gln Phe Phe
    50
                                िट type of errors shown exist throughout
                                the Sequence Listing. Please check subsequent
                                Conces for similar errors.
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 04/04/2006 PATENT APPLICATION: US/10/573,130 TIME: 10:13:07

Input Set : A:\Final Sequence list-13111-00035-US.txt

Output Set: N:\CRF4\04042006\J573130.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:15; Xaa Pos. 60
Seq#:16; Xaa Pos. 19,20
Seq#:17; Xaa Pos. 12,13,14,15
Seq#:18; Xaa Pos. 8
Seq#:19; Xaa Pos. 9,11,12,13,14,15
Seq#:22; Xaa Pos. 6,10,11,12,13,14,15
Seq#:23; Xaa Pos. 6,12,15,16,17,18
Seq#:24; Xaa Pos. 6,10,11,12,13,14,15,16,17
Seq#:25; Xaa Pos. 16,17,18,19,20
Seq#:26; Xaa Pos. 1,3
Seq#:27; Xaa Pos. 9,13
Seq#:28; Xaa Pos. 7,17,18,19,20
Seq#:30; Xaa Pos. 1,10,11,12,13,14,15,16,17,18,19,20
Seg#:32: Xaa Pos - 2-.30
Deq#:33; Add PUS. 5,0,7,0,5,11
Seq#:34; Xaa Pos. 3,13,14,15,16,17,18,19,20
Seq#:35; Xaa Pos. 11,12,13,14
Seq#:36; Xaa Pos. 1
Seq#:40; Xaa Pos. 1
Seq#:41; Xaa Pos. 2,39,40
Seq#:42; Xaa Pos. 37,38,39
Seq#:43; Xaa Pos. 12,13,14,15
Seq#:44; Xaa Pos. 13,14,15
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/573,130

DATE: 04/04/2006 TIME: 10:13:07

Input Set : A:\Final Sequence list-13111-00035-US.txt

Output Set: N:\CRF4\04042006\J573130.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:48 L:602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:16 L:623 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0 L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0 L:711 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0 L:711 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:806 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:903 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:907 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:16
L:929 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:933 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:16
L:950 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:954 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:16 L:976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0 L:1063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0 L:1160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0 L:1164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:16 La1326 M:341 W: (46) "n" or "Xaa" used, ላሷልሮ SEQ ID#:30 after pos.:0 5:1330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:16 ' L:1560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:16 L:1577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0 L:1638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0 L:1642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:16 L:1659 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0 L:1691 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0 L:1821 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0 L:1851 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0 L:1859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:32 L:1993 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:32 L:2010 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0 L:2072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0